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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,913	07/31/2001	Hitoshi Ikeda	100353-00065	2024

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07/17/2002

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EXAMINER

YOHA, CONNIE C

ART UNIT PAPER NUMBER

2818

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,913

Applicant(s)

IKEDA ET AL.

Examiner

Connie c. Yoha

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-16 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 8-10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claim 1-7, drawn to plural blocks or banks, classified in class 365, subclass 230.03.
 - II. Claim 8-10, and 13-14, drawn to control unit for controlling source voltages, classified in class 365, subclass 226.
 - III. Claim 11-12, drawn to detail circuitry of the control unit for controlling source voltages, classified in class 365, subclass 226.
 - IV. Claim 15-16, drawn to refresh operation, classified in class 365, subclass 222.
2. The inventions are distinct, each from the other because of the following reasons: Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as control unit used for controlling the source voltages and power pads receiving source voltages. See MPEP § 806.05(d).
3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as the detail circuitry of the control unit including first and second pad, for controlling the internal power supply circuit based on control signals. See MPEP § 806.05(d).
4. Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and

(2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because invention drawn to control unit for controlling source voltages. The subcombination has separate utility such as the control unit including first and second pad, and an internal power supply circuit controlled by the control unit.

5. The inventions are distinct, each from the other because of the following reasons:

Inventions I/II/III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention IV has separate utility such as accessing the SRAM cell array during a refresh operation of the DRAM cell array. See MPEP § 806.05(d).

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Bala Sundararajan on 6/24/2002, a provisional election was made without traverse to prosecute the invention of Group II, claims 8-10 and 13-14. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-12, and 15-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

9. This office acknowledges receipt of the following items from the Applicant:

Papers submitted under 35 U.S.C. 119(a)-(d) have been placed of record in the file.

10. Information Disclosure Statement (IDS) filed on 7/31/01 was considered.

11. Claims 8-16 are presented for examination.

12. Claims 11-12, and 15-16 are withdrawn from further consideration due to the restriction requirement.

13. Claims 8-10 and 13-14 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 8-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui, Pat. No. 6324104 in view of Sakata et al., Pat. No. 5606265.

With regard to claim 8, Matsui discloses an SRAM memory block provide on a chip, the SRAM memory block including an SRAM cell array (fig. 77, 602); and a DRAM memory block provided on the chip, the DRAM memory block including a DRAM cell array (fig. 77, 601). Matsui does not discloses a source voltage is externally supplied to the DRAM memory block when the DRAM cell array is accessed, and said source voltage to the DRAM memory block is set to a ground voltage when the DRAM cell array is not accessed. However, Sakata discloses a source voltage is externally supplied to the DRAM memory block when the DRAM cell array is accessed, and said source voltage to the DRAM memory block is set to a ground voltage when the DRAM cell array is not accessed (col. 10, line 57-62) (fig. 1, 3, 5A) for the purpose of turning off/on the source voltage of the accessed and in-access memory block. One having an ordinary skill in the art at the time the invention was made to combine the Matsui's memory block with Sakata's to achieve an improved semiconductor memory device that reduces the power consumption. when memory is not in use (also with regard to claim 14.

With regard to claim 9, Matsui discloses and inherent a first power pad for receiving an SRAM source voltage (fig. 77, VINT 2), the SRAM source voltage being supplied from the first power pad to the SRAM memory block (fig. 77, 602); an inherent second power pad for receiving a DRAM source voltage (fig. 77, VINT 1), the DRAM source voltage being supplied from the second power pad to the DRAM memory block (fig. 77, 601).

With regard to claim 10, Matsui discloses a power pad shared by the SRAM memory block and the DRAM memory block, the power pad receiving the externally supplied source voltage (fig. 77, VEXT (EXTERNAL POWER SOURCE VOLTAGE TERMINAL)); and a control unit for controlling ON/OFF of the source voltage supplied from the power pad to the DRAM memory block in response to a control signal which is externally supplied to the control unit (fig. 76, 603) (also with regard to claim 13)

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Matsui (6262939) and Maesako et al (6016280) disclose a memory device.

16. When responding to the office action, Applicants' are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

17. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) 306-5731. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, David Nelms, can be reached on (703) 308-4910. The fax phone number for this Group is (703) 308-7722. Any inquiry of a general nature or

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relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.



C. Yoha

July, 2002



David Nelms
Supervisory Patent Examiner
Technology Center 2800